									Sheet <u>1</u> of <u>5</u>
		U.S. DEPARTMENT OF C	COMMERCE		ATTY. DOCKET NO.		APPL	ICATION NO.	
		PATENT AND TRADEMA	ARK OFFICE		110199.404USPC		10/5	568,655	
					APPLICANTS				
	INFOI	RMATION DISCLOSUR	E STATEMENT		Kenneth Martin Taylor	et al.			
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			U.S.	PATENT I	DOCUMENTS				
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLA	SS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3,532,667	10/06/70	Singh et a	1.	524		99	
	AB	6,133,322	10/17/00	Rustin et a	al.	514		689	
	AC	2002-0052342	05/02/02	Murphy e	t al.	514		75	
	AD	2003-0069208	04/10/03	Murphy e	t al.:	514		75	
	AE	2004-0106579	06/03/04	Murphy et	t al.	514		75	
	AF	2006-0229278	10/12/06	Taylor et a	al.				
	AG	2007-0270381	11/22/07	Murphy e	t al.	514		100	
	АН	2007-0238709	10/11/07	Murphy e	t al.	514		183	
	AI	2008-0275005	11/06/08	Murphy e	t al.				
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<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

## U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

## INFORMATION DISCLOSURE STATEMENT

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ATTY. DOCKET NO.	APPLICATION NO.	
110199.404USPC	10/568,655	
APPLICANTS		
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FILING DATE	GROUP ART UNIT	
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	DOCUMENT NUMBER	DATE	COUNTRY		SLATION
BA	0.000.000.4.1	11/2/88	EP	YES	NO
ВВ	5356036 B1	04/07/93	EP		
ВС	549366	04/15/98	EP		
BD	59-39855	03/05/84	JP (+English Abstract)		
ВЕ	5-310763	11/22/93	JP (English Abstract Only)		
BF	7-223991	08/22/95	JP (+English Abstract)		
BG	8-239340	09/17/96	JP (+English Abstract)		
ВН	09-278770	09/29/06	JP (+English Abstract)		
ВІ	513547	01/07/03	NZ		
ВЈ	91/19815 A1	12/26/91	PCT		
ВК	95/26973 A1	10/12/95	PCT		
BL	03/016323	02/27/03	PCT		
BM	05/019233 A1	03/03/05	PCT		
BN	99/026582 A2	6/3/99	PCT		
ВО	99/026954 A1	06/30/99	PCT		
ВР	03/065882 A2	08/14/03	PCT		
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		OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
	CA	Burns, R., et al., "Labeling Of Mitochondrial Proteins In Living Cells By The Thiol Probe Thiobutyltriphenylphosphonium Bromide," Arch .Biochem .Biophys., 339(1):33-9, March 1, 1997.			
	СВ	Burns, R., et al., "Synthesis and Characterization Of Thiobutyltriphenylphosphonium Bromide, A Novel Thiol Reagent Targeted To The Mitochondrial Matrix," Arch. Biochem. Biophys., 322(1):60-8, September 10, 1995.			
	CC	Chen, L.B., "Mitochondrial Membrane Potential in Living Cells," Annual Review of Cell Biology, 4:155-181, November 1988.			
	CD	Coulter et al., Mitochondrially targeted antioxidants and thiol Reagents, Free Radica Biology & Medicine (2000), 28(10), 1547-1554.			
	СЕ	Davey, G.P., et al., "Uptake and accumulation of 1-methyl-4-phenylpyridinium by rat live mitochondria measured using an ion-selective electrode," Biochem J., 288(Pt 2): 439–443 1992 December 1, 1992.			
	CF	Dean., W., et al. "Mitochondrial Nutrition, Aging and Cognition," Smart Drug News (5)2, August 1, 1996.			
	CG	Ernster, L. et al., "The mode of action of lipid-soluble antioxidants in biological membranes: relationship between the effect of ubiquinol and vitamin E as inhibitors of lipid peroxidation in submitochondrial particles," BioFactors 3(4): 241-248 1992.			
	СН	Everett, S., et al., "Scavenging Of Nitrogen Dioxide, Thiyl, And Sulfonyl Free Radicals By The Nutritional Antioxidant Beta-Carotene," <i>J. Biol. Chem.</i> , 271(8):3988-94, February 23, 1996.			
	CI	Goto, G., et al., "A Facile Synthesis of 1,4-Benzoquinones Having a Hydroxyalkyl Side Chain," Chem Pharm Bull (Tokyo), 33(10):4422-31, 1985. cited by other.			
	CJ	Grisar, J. Martin et al., "Cardioselective ammonium, phosphonium, and sulfonium analogues of alpha-tocopherol and ascorbic acid that inhibit in vitro and ex vivo lipid peroxidation and scavenge superoxide radicals," 1: J Med Chem. 38(15):2880-6, July 21, 1995.			
	СК	James, A.M. et al., "Antioxidant and prooxidant properties of mitochondrial coenzyme Q," Arch. Biochem. Biophys. 423, 47-56, 2004.			
	CL	Jauslin, M. L., et al., "A cellular model for Friedreich Ataxia reveals small-molecular glutathione peroxidase mimetics as novel treatment strategy," Human Molecular Genetic 11(24):3055-3063, 2002.			
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	OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)  Jauslin, M., et al., "Mitochondria-Targeted Antioxidants Protect Friedreich Ataxia		
DA	Fibroblasts From Endogenous Oxidative Stress More Effectively Than Untargeted Antioxidants," <i>FASEB J., 17</i> (13):1972-4, October 2003.		
DB	Kamo, N. et al., "Membrane potential measured with an electrods sensitive to tetraphenyl-phosphonium and relationship," J Membr. Biol, 49:105-121, 1979.		
DC	Keinan, E. et al., "Total synthesis of linear polyprenoids. II: Improved preparation of th aromatic nucleus of ubiquinone," J. Org. Chem. 52(17) 3872-3875, 1987.		
DD	Kelso, G., et al., "Prevention Of Mitochondrial Oxidative Damage Using Targeted Antioxidants," Ann. NY Acad. Sci., 959:263-74, April 2002.		
DE	Koyama, Mayumi, et al., "Synthesis of Fluorine Analogs of Vitamin E. II. Synthesis of 2-(3-chloropropyl)-2,5,7,8-tetramethyl-6-chromano and its application for stereocontrolled Witting reaction and trifluromethyl ketones," Chemical and Pharmaceutical Bulletin, 36(8):2950-2954, 1988.		
DF	Masaki, N. et al., "Mitochondrial Damage as a Mechanism of Cell Injury in the Killing of Cultured Hepatocytes by tert-Butyl Hydroperoxide," <i>Archives of Biochemistry and Biophysics</i> , 270(2): 672-680, May 1, 1989. (Abstract only)		
DG	Masaki, N., et al., "Intracellular Acidosis Protects Cultured Hepatocytes From The Toxic Consequences Of A Loss Of Mitochondrial Energization," Arch Biochem Biophys., 272(1):152-61, July 1989. (Abstract only)		
DH	McKittrick et al., "Synthesis of the Yeast Antioxidant Benzofuran and Analogs," J. Chem. Soc. Perkin Trans, 1:709-712(721?), 1984.		
DI	Okamoto, K., et al., "Synthesis of guinones having carboxy- and hydroxy-alkyl side		
DJ	Rottenberg H., "The measurement of membrane potential and deltapH in cells, organelles, and vesicles," Methods Enzymol., 55:547–569, 1979.		
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Date: January 6, 2009

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INFORMATION DISCLOSURE STATEMENT	APPLICANTS  Kenneth Martin Taylor et al.		
(Use several sheets if necessary)	FILING DATE	GROUP ART UNIT	
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	Sakamoto, K. et al., "Role of the isoprenyl tail of ubiquinone in reaction with respiratory enzymes: studies with bovine heart mitochondrial complex I and Escherichia coli bo-type ubiquinol oxidase," Biochemistry 37(43), 15106–15113, October 27, 1998.						
	ЕВ	Smith, Robin A.J., et al. "Targeting Coenzyme Q Derivatives to Mitochondria," Methods in Enzymology; Quinones and Quinone Enzymes, Part B, 382: 45-67, 2004.					
	EC	Smith, Robin, A.J. et al., "Selective targeting of an antioxidant to mitochondria," <i>European Journal of Biochemistry</i> , 263:709-716, 1999.					
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